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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/080,945	02/22/2002	Jane Wen Chang		6493

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EXAMINER	
WASSUM, LUKE S	

ART UNIT	PAPER NUMBER
2167	

DATE MAILED: 08/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/080,945	CHANG ET AL.	
	Examiner	Art Unit	
	Luke S. Wassum	2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 May 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 3-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 3-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08 November 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3 May 2006 has been entered.

Response to Amendment

2. The Applicants' amendment, filed 3 May 2006, has been received, entered into the record, and considered.

3. As a result of the amendment, claims 1, 5, 8, 13, 14, 17 and 19 have been amended. Claim 2 has been previously canceled. Claims 1 and 3-20 remain pending in the application.

The Invention

4. The claimed invention is a method of document retrieval including assigning concept labels to documents contained in a collection according to grammar rules, receiving a query, converting the query to a query concept using the grammar rules, and mapping the query concept to a concept label.

Change of Correspondence Address

5. The Applicants' request for change of correspondence address is acknowledged. The requested change, to the address associated with customer number 45729, has been entered into the record.

Claim Rejections - 35 USC §§ 102/103

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 1, 3-6, 8-10 and 13-20 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over **Lin et al.** (U.S. Patent 6,675,159).

11. Regarding claim 1, **Lin et al.** teaches a computer-implemented method of retrieving information comprising:

a) performing a pre-processing stage by parsing the documents contained in a collection with a grammar in order to identify one or more concepts contained therein (see disclosure that the invention indexes collections of documents with ontology-based predicate structures, col. 6, lines 34-38; see also disclosure that predicate structures are concepts, col. 8, lines 47-51; see also disclosure of the use of a grammar by the document ontological parser, col. 10, line 62 through col. 11, line 12; see also col. 20, lines 10-12);

b) assigning concept labels to the documents contained in the collection based on the identified concepts (see disclosure that the invention indexes collections of documents with ontology-based predicate structures, col. 6, lines 34-38; see also disclosure that predicate structures are concepts, col. 8, lines 47-51; see also col. 20, lines 10-12);

c) performing a post-processing stage by applying the grammar to a query to convert the query to a query concept (see disclosure of the use of a grammar by the query ontological parser, col. 9, line 48 through col. 10, line 7; note that although the reference discloses that the query parser is optimized for parsing user queries [col. 9, lines 52-53] and that the document parser is similarly optimized for the grammatical structure of documents [col. 11, lines 1-2 and 5-8], the characterization of these features as 'optimizations' renders inherent or alternately obvious a non-optimized embodiment that uses the same grammar for both document and query parsing as claimed; see MPEP § 2123:

> "The use of patents as references is not limited to what the patentees describe as their own inventions or to the problems with which they are concerned. They are part of the literature of the art, relevant for all they contain." *In re Heck*, 699 F.2d 1331, 1332-33, 216 USPQ 1038, 1039 (Fed. Cir. 1983) (quoting *In re Lemelson*, 397 F.2d 1006, 1009, 158 USPQ 275, 277 (CCPA 1968)).

> A reference may be relied upon for all that it would have reasonably suggested to one having ordinary skill the art, including nonpreferred embodiments. *Merck & Co. v. Biocraft Laboratories*, 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir.), cert. denied, 493 U.S. 975 (1989). See also *Celeritas Technologies Ltd. v. Rockwell International Corp.*, 150 F.3d 1354, 1361, 47 USPQ2d 1516, 1522-23 (Fed. Cir. 1998)"

); and

d) mapping the query concept to a concept label that matches the query concept (see disclosure that the system extracts concepts behind user queries and returns those documents that match those concepts, col. 6, lines 34-40; see also col. 20, line 60 through col. 21, line 5).

12. Regarding claim 13, **Lin et al.** teaches a computer-implemented method of document retrieval as claimed, comprising:

a) performing a pre-processing stage by parsing the documents contained in a collection according to grammar rules in order to identify one or more concepts contained therein (see disclosure that the invention indexes collections of documents with ontology-based predicate structures, col. 6, lines 34-38; see also disclosure that predicate structures are concepts, col. 8, lines 47-51; see also disclosure of the use of a grammar by the document

ontological parser, col. 10, line 62 through col. 11, line 12; see also col. 20, lines 10-12);

b) assigning concept labels to the documents contained in the collection according to the grammar rules (see disclosure that the invention indexes collections of documents with ontology-based predicate structures, col. 6, lines 34-38; see also disclosure that predicate structures are concepts, col. 8, lines 47-51; see also col. 20, lines 10-12);

c) performing a post-processing stage by applying the grammar rules to a query to convert the query to a query concept (see disclosure of the use of a grammar by the query ontological parser, col. 9, line 48 through col. 10, line 7; note that although the reference discloses that the query parser is optimized for parsing user queries [col. 9, lines 52-53] and that the document parser is similarly optimized for the grammatical structure of documents [col. 11, lines 1-2 and 5-8], the characterization of these features as 'optimizations' renders inherent or alternately obvious a non-optimized embodiment that uses the same grammar for both document and query parsing as claimed; see MPEP § 2123:

> "The use of patents as references is not limited to what the patentees describe as their own inventions or to the problems with which they are concerned. They are part of the literature of the art, relevant for

all they contain." *In re Heck*, 699 F.2d 1331, 1332-33, 216 USPQ 1038, 1039 (Fed. Cir. 1983) (quoting *In re Lemelson*, 397 F.2d 1006, 1009, 158 USPQ 275, 277 (CCPA 1968)).

A reference may be relied upon for all that it would have reasonably suggested to one having ordinary skill the art, including nonpreferred embodiments. *Merck & Co. v. Biocraft Laboratories*, 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir.), cert. denied, 493 U.S. 975 (1989). See also *Celeritas Technologies Ltd. v. Rockwell International Corp.*, 150 F.3d 1354, 1361, 47 USPQ2d 1516, 1522-23 (Fed. Cir. 1998)"

); and

d) mapping the query concept to a concept label that matches the query concept (see disclosure that the system extracts concepts behind user queries and returns those documents that match those concepts, col. 6, lines 34-40; see also col. 20, line 60 through col. 21, line 5).

13. Regarding claim 17, **Lin et al.** teaches a computer program residing on a computer-readable medium as claimed, comprising instructions for causing a processor to:

a) perform a pre-processing stage by parsing the documents contained in a collection with a grammar in order to identify one or more concepts contained therein (see disclosure that the invention indexes collections of

documents with ontology-based predicate structures, col. 6, lines 34-38; see also disclosure that predicate structures are concepts, col. 8, lines 47-51; see also disclosure of the use of a grammar by the document ontological parser, col. 10, line 62 through col. 11, line 12; see also col. 20, lines 10-12);

b) assign concept labels to the documents contained in the collection according to the grammar (see disclosure that the invention indexes collections of documents with ontology-based predicate structures, col. 6, lines 34-38; see also disclosure that predicate structures are concepts, col. 8, lines 47-51; see also col. 20, lines 10-12);

c) perform a post-processing stage by applying the grammar to a query to convert the query to a query concept (see disclosure of the use of a grammar by the query ontological parser, col. 9, line 48 through col. 10, line 7; note that although the reference discloses that the query parser is optimized for parsing user queries [col. 9, lines 52-53] and that the document parser is similarly optimized for the grammatical structure of documents [col. 11, lines 1-2 and 5-8], the characterization of these features as 'optimizations' renders inherent or alternately obvious a non-optimized embodiment that uses the same grammar for both document and query parsing as claimed; see MPEP § 2123:

> "The use of patents as references is not limited to what the patentees describe as their own inventions or to the problems with which they are concerned. They are part of the literature of the art, relevant for all they contain." *In re Heck*, 699 F.2d 1331, 1332-33, 216 USPQ 1038, 1039 (Fed. Cir. 1983) (quoting *In re Lemelson*, 397 F.2d 1006, 1009, 158 USPQ 275, 277 (CCPA 1968)).
>
> A reference may be relied upon for all that it would have reasonably suggested to one having ordinary skill the art, including nonpreferred embodiments. *Merck & Co. v. Biocraft Laboratories*, 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir.), cert. denied, 493 U.S. 975 (1989). See also *Celeritas Technologies Ltd. v. Rockwell International Corp.*, 150 F.3d 1354, 1361, 47 USPQ2d 1516, 1522-23 (Fed. Cir. 1998)"

); and

d) map the query concept to a concept label that matches the query concept (see disclosure that the system extracts concepts behind user queries and returns those documents that match those concepts, col. 6, lines 34-40; see also col. 20, line 60 through col. 21, line 5).

14. Regarding claim 19, **Lin et al.** teaches a computer program residing on a computer-readable medium as claimed, comprising instructions for causing a processor to:

a) perform a pre-processing stage by parsing the documents contained in a collection using to grammar rules in order to identify one or more concepts contained therein (see disclosure that the invention indexes collections of documents with ontology-based predicate structures, col. 6, lines 34-38; see also disclosure that predicate structures are concepts, col. 8, lines 47-51; see also disclosure of the use of a grammar by the document ontological parser, col. 10, line 62 through col. 11, line 12; see also col. 20, lines 10-12);

b) assign concept labels to the documents contained in the collection according to the grammar rules (see disclosure that the invention indexes collections of documents with ontology-based predicate structures, col. 6, lines 34-38; see also disclosure that predicate structures are concepts, col. 8, lines 47-51; see also col. 20, lines 10-12);

c) receive a query (see disclosure that the system extracts concepts behind user queries and returns those documents that match those concepts, col. 6, lines 34-40; see also col. 20, line 60 through col. 21, line 5);

d) perform a post-processing stage by applying the grammar rules to a query to convert the query to a query concept (see disclosure of the use of a grammar by the query ontological parser, col. 9, line 48 through col. 10, line 7; note that although the reference discloses that the query parser is

optimized for parsing user queries [col. 9, lines 52-53] and that the document parser is similarly optimized for the grammatical structure of documents [col. 11, lines 1-2 and 5-8], the characterization of these features as 'optimizations' renders inherent or alternately obvious a non-optimized embodiment that uses the same grammar for both document and query parsing as claimed; see MPEP § 2123:

> "The use of patents as references is not limited to what the patentees describe as their own inventions or to the problems with which they are concerned. They are part of the literature of the art, relevant for all they contain." *In re Heck*, 699 F.2d 1331, 1332-33, 216 USPQ 1038, 1039 (Fed. Cir. 1983) (quoting *In re Lemelson*, 397 F.2d 1006, 1009, 158 USPQ 275, 277 (CCPA 1968)).
>
> A reference may be relied upon for all that it would have reasonably suggested to one having ordinary skill the art, including nonpreferred embodiments. *Merck & Co. v. Biocraft Laboratories*, 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir.), cert. denied, 493 U.S. 975 (1989). See also *Celeritas Technologies Ltd. v. Rockwell International Corp.*, 150 F.3d 1354, 1361, 47 USPQ2d 1516, 1522-23 (Fed. Cir. 1998)"

); and

e) map the query concept to a concept label that matches the query concept (see disclosure that the system extracts concepts behind user queries and returns those documents that match those concepts, col. 6, lines 34-40; see also col. 20, line 60 through col. 21, line 5).

15. Regarding claim 3, **Lin et al.** additionally teaches a method in which the concept label represents a general notion (see disclosure that the invention indexes collections of documents with ontology-based predicate structures, col. 6, lines 34-38; see also disclosure that predicate structures are concepts, col. 8, lines 47-51).

16. Regarding claims 4 and 15, **Lin et al.** additionally teaches a method in which the query is a text query received from a user (see disclosure that the query ontological parser transforms user queries entered in natural language into predicates, col. 9, lines 48-54).

17. Regarding claim 5, **Lin et al.** additionally teaches a method in which the pre-processing stage comprises spidering the collection (see col. 20, lines 31-35), matching features contained in each of the documents to a store of concepts (see col. 20, lines 10-15), and storing document location indicators for each matched concept (see disclosure of document indexing, col. 20, lines 10-59).

18. Regarding claim 6, **Lin et al.** additionally teaches a method in which the documents are Hypertext Markup Language (HTML) files (see col. 7, lines 37-41; see also col. 20, lines 31-35).

19. Regarding claim 8, **Lin et al.** additionally teaches a method in which the post-processing stage comprises applying a store of grammar rules to the query (see disclosure of the use of a grammar by the query ontological parser, col. 9, line 48 through col. 10, line 7).

20. Regarding claim 9, **Lin et al.** additionally teaches a method in which the grammar rules map text to concepts (see disclosure of the use of a grammar by the query ontological parser, col. 9, line 48 through col. 10, line 7; see also disclosure that the system transforms user queries entered in natural language into predicates, col. 9, lines 48-52; see also disclosure that predicate structures are concepts, col. 8, lines 47-51).

21. Regarding claims 10, 16, 18 and 20, **Lin et al.** additionally teaches a method further comprising generating and displaying a list of the mapping (see col. 18, line 66 through col. 19, line 35).

22. Regarding claim 14, **Lin et al.** additionally teaches a method in which the pre-processing stage comprises parsing documents automatically with the grammar rules (see disclosure that the invention indexes collections of documents with ontology-based predicate structures, col. 6, lines 34-38; see also disclosure that predicate structures are concepts, col. 8, lines 47-51; see also disclosure of the use of a grammar by the document ontological parser, col. 10, line 62 through col. 11, line 12; see also col. 20, lines 10-12; see also disclosure that document indexing is fully automated, col. 20, lines 52-56).

23. Claims 7, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Lin et al.** (U.S. Patent 6,675,159) as applied to claims 1, 3-6, 8-10 and 13-20 above, and further in view of **Braden-Harder et al.** (U.S. Patent 5,933,822).

24. Regarding claim 7, **Lin et al.** teaches a method substantially as claimed.

Lin et al. does not explicitly teach a method wherein the document location indicators are Universal Resource Identifiers.

Braden-Harder et al., however, teaches a method wherein the document location indicators are Universal Resource Identifiers (see disclosure that the document records typically include the URL associated with the document, col. 1, line 66 through col. 2, line 5).

It would have been obvious to one of ordinary skill in the art at the time of the invention to record a mapping of document features to concepts and document locations (URLs), since the Internet comprises a source of valuable information that is larger than any single conventional database (see col. 1, lines 36-48) and using this technique would significantly ease the task of retrieving information from the Internet (see col. 1, lines 49-52).

25. Regarding claim 11, **Lin et al.** teaches a method substantially as claimed.

Lin et al. does not explicitly teach a method wherein the list of documents represents locations of documents.

Braden-Harder et al., however, teaches a method wherein the list of documents represents locations of documents (see disclosure that the document records typically include the URL associated with the document, col. 1, line 66 through col. 2, line 5).

It would have been obvious to one of ordinary skill in the art at the time of the invention to maintain the location of documents, since the Internet comprises a source of valuable information that is larger than any single conventional database (see col. 1, lines 36-48), and retrieval of information from the Internet requires the maintenance of location information.

26. Regarding claim 12, **Braden-Harder et al.** additionally teaches a method wherein the locations are Universal Resource Identifiers (see disclosure that the document records typically include the URL associated with the document, col. 1, line 66 through col. 2, line 5).

Response to Arguments

27. Applicant's arguments filed 3 May 2006 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

28. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Chang et al. (U.S. Patent 6,704,728) teaches a method of accessing information from a collection of data.

Chang et al. (U.S. Patent 6,711,561) teaches a method of generating a prose response to a query.

Chang et al. (U.S. Patent 6,714,905) teaches a method of parsing ambiguous grammar.

Chang et al. (U.S. Patent 6,745,181) teaches a method of accessing information.

Wang et al. (U.S. Patent 6,766,320) teaches a search engine architecture designed to handle a full range of user queries, from complex sentence-based queries to simple keyword searches.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luke S. Wassum whose telephone number is 571-272-4119. The examiner can normally be reached on Monday-Friday 8:30-5:30, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Cottingham can be reached on 571-272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

In addition, INFORMAL or DRAFT communications may be faxed directly to the examiner at 571-273-4119. Such communications must be clearly marked as INFORMAL, DRAFT or UNOFFICIAL.

Customer Service for Tech Center 2100 can be reached during regular business hours at (571) 272-2100, or fax (571) 273-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Luke S. Wassum
Primary Examiner
Art Unit 2167

lsw
3 July 2006